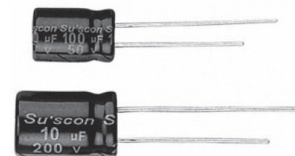


HH series

- Miniature HE series, long-life products.
- Load life : 10000~12000hours.
- Suitable for electronic ballast for lighting equipment.
- long-life power input with smooth function.
- RoHS Compliance
- HE系列的小型化長壽命品。
- 保證壽命10000~12000hours.
- 適用於照明設備電子整流器，長壽命電源輸入平滑用等。



SPECIFICATIONS

Items 項目	Characteristics 特性						
Capacitance Tolerance 靜電容量誤差	± 20%(120Hz, 20°C)						
Operating Temperature Range 適用溫度範圍	- 40 ~ +105°C			- 25 ~ +105°C			
Rated Voltage Range 額定電壓範圍	160 ~ 400VDC			450VDC			
Leakage Current 洩漏電流	$I \leq 0.04CV + 100\mu A$. (After 1minutes application of DC rated voltage, at 20 °C)						
Dissipation Factor 散逸因素(tan δ)	Measurement Frequency:120Hz. Temperature: 20°C						
	Rated Voltage(V)	160	200	250	350	400	450
	tanδ(MAX)	0.20	0.20	0.20	0.24	0.24	0.24
When nominal capacitance over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF							
Low Temperature Stability 低溫特性 Impedance Ratio(Max) 阻抗比率(最大值)	Measurement Frequency:120Hz						
	Rated Voltage(V)	160	200	250	350	400	450
	Z(-25°C) / Z(20°C)	3	3	3	5	5	6
Z(-40°C) / Z(20°C)							
Load Life 負荷壽命	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for 12,000 hours at 105°C.(L≤20mm,10,000 hours)						
	Capacitance Change	within ±20% of Initial Value					
	tan δ	200% or less of Initial Specified Value					
	Leakage Current	Initial Specified Value or less					
Shelf Life 放置壽命	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000hours 105°C without voltage applied. Before the measurement. The Capacitance shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.						
	Capacitance Change	within ±20% of Initial Value					
	tan δ	200% or less of Initial Specified Value					
	Leakage Current	Initial Specified Value or less					
Standards 參照標準	JIS C 5101-4 (IEC 60384)						

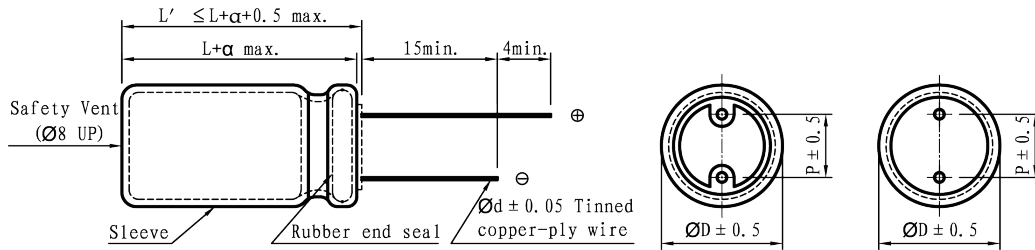
Frequency Coefficient of Permissible Ripple Current

Capacitance (µF)	Frequency (Hz)			
	120	1K	10K	100K
6.8~82	1.00	1.75	2.25	2.50
100~680	1.00	1.67	2.05	2.25

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise.when long life performance is required in actual use. The rms ripple current has to be reduced.

HH series

DIMENSIONS(mm)



ϕD	10	13	16	18
P	5.0	5.0	7.5	7.5
ϕd	0.6	0.6	0.8	0.8

α	(L < 16) 1.0
	(L > 16) 2.0

STANDARD RATINGS

D×L(mm) ; R.C.(mA rms) at 105°C 120Hz.

Cap (μF)	V	160		200		250		350		400		450	
		Item	D x L	R.C.	D x L	R.C.	D x L	R.C.	D x L	R.C.	D x L	R.C.	D x L
6.8										10x16	130	10x16	100
10										10x16	140	10x20	130
12								10x16	150	10x20	165	10x20	145
15								10x20	170	10x20	180	10x25	175
22				10x16	210	10x16	210	10x20	215	10x30	260	13x25	285
33	10x16	230	10x20	290	10x20	290	13x21	330	13x25	365	16x22	365	
47	10x20	285	10x20	340	13x21	465	13x25	485	16x22	495	16x26	475	
56	10x20	300	10x25	395	13x21	490	16x22	530	16x26	555	18x26	530	
68	13x21	500	13x21	520	13x25	550	16x26	630	16x26	600	16x36	625	
82	13x21	580	13x25	610	16x22	655	18x26	720	18x26	720	18x32	695	
100	13x21	610	16x22	655	16x22	680	18x26	750	18x32	830	18x35	790	
120	16x22	720	16x25	760	16x26	800	18x32	890	18x35	890	18x40	885	
150	16x22	780	18x22	865	18x26	920	18x35	1020	18x40	980			
180	16x25	950	18x26	950	18x30	990	18x40	1140	18x45	1050			
220	18x25	1050	18x30	1125	18x32	1100	18x45	1235					
270	18x30	1170	18x35	1340	18x40	1380							
330	18x35	1370	18x40	1480	18x45	1450							
390	18x36	1500	18x45	1590									
470	18x40	1825	18x50	1760									
560	18x45	2025											
680	18x50	2185											

※13mm may be replaced by 12.5mm upon customer's request.